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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,207	12/16/2003	Randy Haagens	200313142-1	5771

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EXAMINER

ANWARI, MACEEH

ART UNIT	PAPER NUMBER
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2109

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/737,207

Applicant(s)

HAAGENS ET. AL.

Examiner

Maceeh Anwari

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/16/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

This is the initial Office action based on the 10/737207 application filed December 16, 2003. Claims 1-26, as originally filed, are currently pending and have been considered below.

Claim Objections

1. Claims 12-20 are objected to because of the following informalities: because the applicant uses the term "network" in the preamble of claim 11 to address invention, and uses the term "apparatus" to refer to the invention in it's following dependent claims. Appropriate correction is required.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-20 and 26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, the "apparatus" claimed is in fact software per se and not a process, machine, or composition of matter.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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3. Claims 1-10 & 12-20 & 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claims 1-10 & 12-20 & 26 are vague and indefinite because the applicant recites the limitation of an "apparatus" however the claims lack a physical component.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1- 4 & 7-10 & 11-14 & 17-20 & 21-26 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-23 of copending Application No. 10/666174.

Although the conflicting claims are not identical, they are not patentably distinct

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from each other because Chadalapaka, application NO.: 10/666174 (hereinafter Chadalapaka), teaches:

Claim 1:

An apparatus for managing flow control of a data transfer, comprising: a first protocol associated with a plurality of receive buffers (Claim 1 lines 17-18; it is inherent for a protocol to be associated with a plurality of receive buffers when communicating with other protocols to receive the inbound data transfers); a second protocol adapted to manage the plurality of receive buffers for the first protocol (Claim 1 lines 20- 30 reads on the limitation of managing the buffers because in order for it to receive the request and determine whether the request contains a request for completion and actually send the performance request to the corresponding data transfer it would have to manage the previous receive buffers); and a third protocol that determines whether one of the plurality of receive buffers is available for a data packet and (a) if one of the plurality of receive buffers is available, permits an acknowledgement packet to be sent to a node that sent the data packet, and (b) if one of the plurality of receive buffers is unavailable, drops the data packet, notifies the second protocol regarding the unavailability of the plurality of receive buffers, and withholds the acknowledgement packet (Claim 1 lines 25-36; reads on the limitation of sending and withholding the acknowledgement).

Claim 11:

A network, comprising: a plurality of systems, at least one of the plurality of systems executing a process (Claim 8 lines 57-60); and at least one input/output device adapted to receive a data packet from the at least one of the plurality of systems, the at least one input/output device comprising (Claim 8 lines 57-65; reads on the limitation of the I/O device receiving data packets because in order for a network device to be able to communicate it must be able to receive and transmit data packets): a first protocol associated with a plurality of receive buffers (Claim 8 lines 5-6); a second protocol adapted to manage the plurality of receive buffers for the first protocol (Claim 8 lines 4- 12 reads on the limitation of managing the buffers because in order for it to receive the request and examine whether an acknowledgment request is indicated and send a performance request to a third protocol it would have to manage the previous receive buffers); and a third protocol that determines whether one of the plurality of receive buffers is available for a data packet and (a) if one of the plurality of receive buffers is available, permits an acknowledgement packet to be sent to a node that sent the data packet, and (b) if one of the plurality of receive buffers is unavailable, drops the data packet, notifies the second protocol regarding the unavailability of the plurality of

receive buffers, and withholds the acknowledgement packet (Claim 8 lines 15-20).

Claim 2 & 12:

The apparatus set forth in claim 1, wherein the first protocol is an upper layer protocol ("ULP") (Claim 2 lines 37-39; reads off of this limitation because iSCSI protocol is an upper layer protocol).

Claim 3 & 13:

The apparatus set forth in claim 2 (and 12 respectively), wherein the upper layer protocol is an internet small computer systems interface ("iSCSI") protocol (Claim 2 lines 37-39).

Claim 4 & 14:

The apparatus set forth in claim 1 (and 11 respectively), wherein the second protocol is a datamover protocol (Claim 3 lines 40-43; iSER protocol is a form of datamover protocol).

Claim 7 & 17:

The apparatus set forth in claim 1 (and 11 respectively), comprising a transport protocol that generates a request to the third protocol to determine whether one of the plurality of receive buffers is available for the data packet (Claims 4-5 lines 44-50; where the error recovery level determines whether previous events are completed or not).

Claim 8 & 18:

The apparatus set forth in claim 1 (and 11 respectively), wherein the data packet comprises a sequence field that corresponds to a reliability tracking value for the data packet (Claim 1 lines 29-36).

Claim 9 & 19:

The apparatus set forth in claim 1 (and 11 respectively), wherein the acknowledgement packet comprises an acknowledgement field that corresponds to an identity of data received by the transport protocol (Claim 1 lines 29-36).

Claim 10 & 20:

The apparatus set forth in claim 1 (and 11 respectively), comprising a transport protocol that uses a remote direct memory access network interface card ("RNIC") to receive the data packet and send the acknowledgement packet (Claim 10 lines 29-33).

Claim 21:

A method of managing flow control of a data transfer, the method comprising the acts of: receiving a data packet (Claim 16 lines 49-51); determining whether at least one receive buffer is available for the data packet; if the at least one buffer is available, sending an acknowledgement packet to a node that sent the data packet; and if the at least one buffer is unavailable, dropping the data packet, providing a notification regarding the unavailability of

the at least one buffer, and withholding an acknowledgement packet from the node that sent the data packet (Claim 16 lines 52-54-62).

Claim 22:

The method set forth in claim 21, comprising the act of placing the data packet into the at least one buffer if the at least one buffer is available (Claim 20 lines 12-14; in order for the RDMA to write message completion it would have to send it to at least one available buffer).

Claim 23:

The method set forth in claim 21, comprising the act of transmitting the data packet according to a transmission control protocol ("TCP") (It is inherent that for data to be transmitted through a TCP/IP network it would have to use the TCP for transmission).

Claim 24:

The method set forth in claim 21, comprising the act of providing the notification regarding the unavailability of the at least one buffer via an internet small computer systems interface ("iSCSI") protocol (Claims 2 & 17).

Claim 25:

The method set forth in claim 21, comprising the act of notifying a process associated with the at least one buffer once the

at least one buffer is determined to be unavailable (Claims 20-21; where the error recovery level determines whether previous events are completed or not).

Claim 26:

An apparatus for managing flow control of a data transfer, comprising: means for receiving a data packet at a first protocol; means for determining whether at least one receive buffer is available for the data packet; means for sending an acknowledgement packet to a node that send the data packet if the at least one buffer is available; and means for dropping the data packet, notifying a second protocol regarding the unavailability of the at least one buffer, and preventing an acknowledgement packet from being sent if the at least one buffer is unavailable (Claim 22).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

1. Claims 5 & 15 & 6 & 16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 6-7 & 11-12 & 18-20 of copending Application No. 10/666174 in view of U.S. Publication NO.: 2004/0190533 A1.

Claims 1-23 of Chadalapaka teaches the invention as discussed above and further teaches RDMA and zero length RDMA (claim 7), zero length RDMA being a type of direct data placement (DDP) protocol.

Claims 1-23 of Chadalapaka fail to teach the apparatus set forth in claims 5 and 15, wherein the third protocol is an iWARP protocol.

Modi et al., U.S. Publication NO.: 2004/0190533 A1 teaches that iWARP is simply a reference to the suite of protocols comprising the RDMA protocol for the purpose of transmission across a network, such as a switch network (Par. 22 Lines 1-3).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of claims 1-23 of Chadalapaka with the third protocol being iWARP protocol as taught by Modi et al because of facilitating communication over TCP/IP networks.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-2 & 4 & 7-10 & 11-12 & 14 & 17-19 & 20-23 & 25 & 26 are rejected under 35 U.S.C. 102(b) as being taught by Recio et al (hereinafter Recio), International Publication No. WO 00/72142.

Recio teaches:

Claim 1:

An apparatus for managing flow control of a data transfer (Page 19 lines 14-18 & Page 22 lines 7-11; reads on the limitation of flow control and data transfer), comprising: a first protocol associated with a plurality of receive buffers (Page 9 lines 29 –31 & Page 10 lines 1-2 & 26-31 & Page 11 lines 1-2; reads off of the limitation of a single or multiple receive buffers); a second protocol adapted to manage the plurality of receive buffers for the first protocol (Figure 13 & Page 36 lines 5-35; the partition manager reads off the limitation that the second protocol is adapted to manage the first protocol); and a third protocol that determines whether one of the plurality of receive buffers is available for a data packet and (a) if one of the plurality of receive buffers is available, permits an acknowledgement packet to be sent to a node that sent the data packet, and (b) if one of the plurality of receive buffers is unavailable, drops the data packet, notifies the second protocol regarding the unavailability of the plurality of receive buffers, and withholds the acknowledgement packet (Page 12 lines 25-3 & Page 13 lines 1-5 & Page 14 lines 3-7 and Page 23 lines 29-31; reads on the limitation of acknowledging the packets, and the time-out values —between a pair of end-nodes-- reads on the limitation of dropped packets and the notification thereof).

Claim 2:

The apparatus set forth in claim 1, wherein the first protocol is an upper layer protocol ("ULP") (Figure 11 & Page 26 lines 7-9 & 23-24).

Claims 4:

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The apparatus set forth in claim 1, wherein the second protocol is a datamover protocol (Figures 5 & 9B & 11 & Page 7 lines 26-30 & Page 9 lines 29-31 & Page 10 lines 1-2 & 26-31 & Page 11 lines 1-2 & Page 21 lines 30-31 & Page 22 lines 1-6; teaches the limitation of the datamover protocol).

Claim 7:

The apparatus set forth in claim 1, comprising a transport protocol that generates a request to the third protocol to determine whether one of the plurality of receive buffers is available for the data packet (Page 38 lines 17-26).

Claim 8:

The apparatus set forth in claim 1, wherein the data packet comprises a sequence field that corresponds to a reliability tracking value for the data packet (Page 14 lines 3-11).

Claim 9:

The apparatus set forth in claim 1, wherein the acknowledgement packet comprises an acknowledgement field that corresponds to an identity of data received by the transport protocol (Figures 1 & 9B & Page 5 lines 13-19 & Page 8 lines 4-19 & Page 14 lines 3-11; meets the limitation of identifying the data through data frames and headers).

Claim 10:

The apparatus set forth in claim 1, comprising a transport protocol that uses a remote direct memory access network interface card ("RNIC")

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to receive the data packet and send the acknowledgement packet (Page 10 lines 3-19; it is inherent that, since RDMA is utilized throughout the Recio invention, an RNIC would be used as an interface card).

Claim 11:

A network, comprising: a plurality of systems, at least one of the plurality of systems executing a process; and at least one input/output device adapted to receive a data packet from the at least one of the plurality of systems (Page 4 lines 21-28), the at least one input/output device comprising: a first protocol associated with a plurality of receive buffers (Page 9 lines 29 –31 & Page 10 lines 1-2 & 26-31 & Page 11 lines 1-2; reads off of the limitation of a single or multiple receive buffers); a second protocol adapted to manage the plurality of receive buffers for the first protocol (Figure 13 & Page 36 lines 5-35; the partition manager reads off the limitation that the second protocol is adapted to manage the first protocol); and a third protocol that determines whether one of the plurality of receive buffers is available for a data packet and (a) if one of the plurality of receive buffers is available, permits an acknowledgement packet to be sent to a node that sent the data packet, and (b) if one of the plurality of receive buffers is unavailable, drops the data packet, notifies the second protocol regarding the unavailability of the plurality of receive buffers, and withholds the acknowledgement packet (Page 12 lines 25-3 & Page 13 lines 1-5 & Page 14 lines 3-7 and Page 23 lines 29-31; reads on the limitation of acknowledging the packets, and the time-out values —

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between a pair of end-nodes-- reads on the limitation of dropped packets and the notification thereof).

Claim 12:

The apparatus set forth in claim 11, wherein the first protocol is an upper layer protocol ("ULP") (Figure 11 & Page 26 lines 7-9 & 23-24).

Claim 14:

The apparatus set forth in claim 11, wherein the second protocol is a datamover protocol (Figures 5 & 9B & 11 & Page 7 lines 26-30 & Page 9 lines 29-31 & Page 10 lines 1-2 & 26-31 & Page 11 lines 1-2 & Page 21 lines 30-31 & Page 22 lines 1-6; teaches the limitation of the datamover protocol).

Claim 17:

The apparatus set forth in claim 11, comprising a transport protocol that generates a request to the third protocol to determine whether one of the plurality of receive buffers is available for the data packet (Page 38 lines 17-26).

Claim 18:

The apparatus set forth in claim 11, wherein the data packet comprises a sequence field that corresponds to a reliability tracking value for the data packet (Page 14 lines 3-11).

Claim 19:

The apparatus set forth in claim 11, wherein the acknowledgement packet comprises an acknowledgement field that corresponds to an

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identity of data received by the transport protocol (Figures 1 & 9B & Page 5 lines 13-19 & Page 8 lines 4-19 & Page 14 lines 3-11; meets the limitation of identifying the data through data frames and headers).

Claim 20:

The apparatus set forth in claim 11, comprising a transport protocol that uses a remote direct memory access network interface card ("RNIC") to receive the data packet and send the acknowledgement packet (Page 10 lines 3-19; it is inherent that, since RDMA is utilized throughout the Recio invention, an RNIC would be used as an interface card).

Claim 21:

A method of managing flow control of a data transfer, the method comprising the acts of (Page 19 lines 14-18 & Page 22 lines 7-11; reads on the limitation of flow control and data transfer): receiving a data packet; determining whether at least one receive buffer is available for the data packet; if the at least one buffer is available (Page 38 lines 17-26), sending an acknowledgement packet to a node that sent the data packet; and if the at least one buffer is unavailable, dropping the data packet, providing a notification regarding the unavailability of the at least one buffer, and withholding an acknowledgement packet from the node that sent the data packet (Figures 1 & 9B & Page 12 lines 25-3 & Page 13 lines 1-5 & Page 14 lines 3-7 and Page 23 lines 29-31; reads on the limitation of acknowledging the packets, and the time-out values —between a pair

of end-nodes-- reads on the limitation of dropped packets and the notification thereof).

Claim 22:

The method set forth in claim 21, comprising the act of placing the data packet into the at least one buffer if the at least one buffer is available (Page 7 lines 26-31 & Page 8 lines 1-3).

Claim 23:

The method set forth in claim 21, comprising the act of transmitting the data packet according to a transmission control protocol ("TCP") (Page 15 lines 1-18).

Claim 25:

The method set forth in claim 21, comprising the act of notifying a process associated with the at least one buffer once the at least one buffer is determined to be unavailable (Page 38 lines 17-26).

Claim 26:

An apparatus for managing flow control of a data transfer, comprising (Page 19 lines 14-18 & Page 22 lines 7-11; reads on the limitation of flow control and data transfer): means for receiving a data packet at a first protocol (Page 9 lines 29-31 & Page 10 lines 1-2 & 26-31 & Page 11 lines 1-2; reads off of the limitation of a single or multiple receive buffers); means for determining whether at least one receive buffer is available for the data packet (Page 38 lines 17-26); means for sending an acknowledgement packet to a node that send the data packet

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if the at least one buffer is available; and means for dropping the data packet, notifying a second protocol regarding the unavailability of the at least one buffer, and preventing an acknowledgement packet from being sent if the at least one buffer is unavailable (Figures 1 & 9B & Page 12 lines 25-3 & Page 13 lines 1-5 & Page 14 lines 3-7 and Page 23 lines 29-31; reads on the limitation of acknowledging the packets, and the time-out values —between a pair of end-nodes— reads on the limitation of dropped packets and the notification thereof).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 3 and 13 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Recio et al (WO 00/72142 A1) in view of "Overview of Modern SCSI Networking Protocols."

Recio teaches the invention as discussed above and further teaches SCSI and the availability of an end node.

Recio fails to teach the apparatus set forth in claims 3 and 13, wherein the Upper layer protocol being iSCSI.

"Overview of Modern SCSI Networking Protocols," teaches that iSCSI is designed to work with existing SCSI architecture and are compatible with each other for the purpose of facilitating communication over TCP/IP networks.

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of Recio with iSCSI replacing SCSI because iSCSI is designed to work with existing SCSI architecture and are compatible with each other for the purpose of facilitating communication over TCP/IP networks.

12. Claims 5 and 15 and 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Recio et al (WO 00/72142 A1) in view of Modi et al., U.S. Publication NO.: 2004/0190533 A1.

Recio teaches the invention as discussed above and further teaches RDMA and a datamover protocol.

Recio fails to teach the apparatus set forth in claims 5 and 15, wherein the third protocol is an iWARP protocol and fails to teach the iWARP protocol is a direct data placement (DDP) protocol.

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Modi et al., U.S. Publication NO.: 2004/0190533 A1, teaches that iWARP is simply a reference to the suite of protocols comprising the RDMA protocol and teaches that the DDP protocol may translate messages from the RDMA protocol for the purpose of transmission across a network, such as a switch network (Par. 22 Lines 1-3).

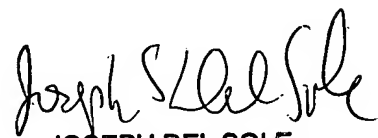
It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of Recio with iWARP being one of the protocols and the datamover protocol being a direct data placement protocol; for the purpose of facilitating communication over TCP/IP networks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maceeh Anwari whose telephone number is 571-272-7591. The examiner can normally be reached on Monday-Friday 7:30-5:00 PM ES.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joe Del Sole can be reached on 571-272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


JOSEPH DEL SOLE
SUPERVISORY PATENT EXAMINER
2/20/06